

Plant Disease in Kansas

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1000 cankers of walnut survey summary 2009-2011

Special points of interest:

- !000 cankers three year survey of state completed
- More on boxwood blight

Thousand cankers of walnut survey has been completed across the state. After three years of survey, no 1000 cankers or beetles have been reported. Kansas Department of Agriculture and Kansas Forest Service participated in the surveys. The 2011 survey accounted for 860 visual observations while in 2010, 493 observations were made (see map). Limited insect trapping has also been conducted with flight intercept traps at log yards and in native woodlands. Walnut twig beetles were not detected in this trapping.

In addition to the visual survey and insect trapping, personnel have monitored firewood sales in western Kansas from neighboring Colorado where 1000 cankers is known to occur. Nothing of significance was reported during the past three years. Two 2011 concerns were in eastern Kansas and involved large box store chains

distributing firewood from outside state sources where the status of TCD was unknown. The state sources were Iowa and Wisconsin. Thousand cankers or walnut twig beetle was not observed in the commodities. Both were resolved to meet the Kansas black walnut TCD quarantine.

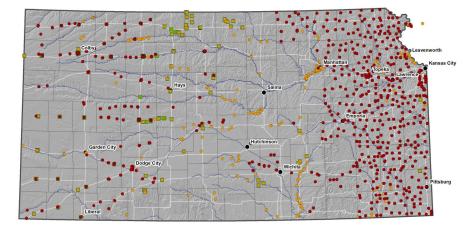
In 2012, the survey will shift some focus to trapping for walnut twig beetle. This will be the first year that a lure for the beetle will be available. Visual surveys will also continue but emphasis will be placed in looking for walnut twig beetle. This beetle is associated with the fungus that causes tree death. The extent and location of trapping is currently being planned and dependent upon outside funding. High priority sites will be walnut stands in decline, log yards, sawmills, and other sites of aggregation. The 4funnel Lindgren trap (right) will be the trap used for walnut twig beetle.

Currently, states to the west of Kansas have had TCD reports and three states in the eastern US. Those states include Tennessee, Virginia, and Pennsylvania.



Map below: Not all sites can be seen because of the proximity of neighboring sites.

Surveyed Black Walnut in Kansas



2011 (860 Observations)
 2010 (493 Observations)
 2009 (139 Observations)
 Source: Kansas Department of Agriculture and Kansas Forest Service

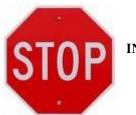
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INVASIVE SPECIES

Plant Protection and Weed Control Program

Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

Our Mission is to:

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantine pests;
- Provide customers with inspection and certification services.

The Plant Disease Survey in Kansas has been conducted since 1976. The survey addresses disease situations in field crops, native ecosystems, and horticultural trade. The Kansas Department of Agriculture works cooperatively with Kansas State University and Extension programs, United States Department of Agriculture, and various commodity groups.

Boxwood blight: A review and a look forward

Boxwood is a common landscape shrub used in Kansas and recently recognized as the 2011 Shrub of the Year. It makes for nice hedges and bushes in the landscape and relatively hardy to weather conditions. In the past, pest problems associated with the plant have been relatively few and have included such diseases as *Phytophthora* root and crown rot, *Volutella* blight, and *Macrophoma* leaf spot.

Recently, states including Connecticut, Virginia, Rhode Island, Maryland, Massachusetts, Oregon, and New York have had reports of a disease called "Boxwood Blight" or box blight. This disease had been previously reported in many of the European countries, and Oceania and New Zealand. The new finds in the United States are in various types of locations including landscapes, nurseries, and retail centers. The United States Department of Agriculture and state departments of agriculture are

addressing the various situations in eradication or containment efforts. Trace forward and trace back investigations are also underway. It is our opinion that because of the widespread nature of the disease and the host that this disease was introduced sometime ago and has spread through the nursery trade and natural pathways. We anticipate more findings and the chance of something here in Kansas or neighboring states would not be a surprise.

A little about the disease biology and symptoms: The fungus *Cylindrocladium buxicola* infects the above ground parts of the plant including the stem, twigs, and leaves. Leaf drop is common and repeated attacks lead to decline then death of plantings. Warm and humid conditions are highly favorable for the disease. All species of *Buxus* have been susceptible so far.

Those propagating plants should be

aware of symptoms and limit overhead irrigation whenever possible. Spores of the fungus are splash dispersed on the same plant and carried longer distances by wind or wind driven rain within a nursery. The movement of infected plant material in the nursery trade, contaminated clothing and tools, and wild creatures to a smaller extent can lead to long distance transmission. The good news is that high temperatures (above 91 d F) kill the fungus. Perhaps last summer's temperatures of over 100 F for several weeks killed the disease in Kansas if it already was here. Something good may have come out of that scorcher!

Growers should be aware of buying boxwood from eastern US sources. Plants treated with fungicides may only mask the symptoms and after a period of time the disease can reemerge.

The disease then can pass into a nursery or planting unnoticed until an outbreak follows.

The debris is highly infectious and should be bagged, burned, or buried. **Do not compost.**

What does it look like? Here is an image gallery on line at http://www.ct.gov/caes/lib/caes/documents/publications/disease_alerts/caes_disease_alert_boxwood_blight_01-11-12.pdf

